

METHOD OF INSPECTING HOLES USING
CHARGED-PARTICLE BEAM

ABSTRACT OF THE DISCLOSURE

5 A method of inspecting contact holes or via holes in a
semiconductor device. Plural small measurement regions Q are established on
the whole sample surface. The measurement regions Q are successively
irradiated with an electron beam. At this time, an absorption current flowing
across the sample is detected and amplified by a current amplifier. A control
unit stores data about the absorption current signal derived from the small
10 regions Q in locations of a memory which are addressed corresponding to the
positions of the small regions. The control unit reads data about absorption
current intensity values from the memory and classifies the intensity values
into four intensity ranges, for example, to which different brightness intensities
are assigned.